

CLAIM AMENDMENTS

In the Claims:

Please cancel claim 38 and amend claims 1, 16, 34, 35 and 39-42 as follows:

1. (currently amended) An *in vivo* process for delivering a polynucleotide to a ~~limb~~ skeletal muscle cell ~~in a limb in~~ of a mammal, comprising:
 - a) inserting the polynucleotide in a solution into a blood vessel ~~of in~~ the limb;
 - b) applying non-invasive external pressure against the ~~mammal's skin[[,]]~~ of the limb such that blood flow ~~through the blood vessel to and from the limb~~ is impeded; and,
 - c) administering immunosuppressive ~~treatment~~ drugs to the mammal;~~wherein delivery of such that~~ the polynucleotide is delivered to the ~~limb~~ skeletal muscle cell in the limb distal to the applied non-invasive external pressure ~~results in expression of the polynucleotide and is expressed in the skeletal muscle cell~~ at detectable levels.
2. (original) The process of claim 1 wherein the polynucleotide consists of naked DNA.
3. (original) The process of claim 1 wherein the polynucleotide is selected from the group consisting of a viral vector and a non-viral vector.
- 4-5. (canceled)
6. (previously presented) The process of claim 1 wherein the limb skeletal muscle cell consists of a leg skeletal muscle cell.
7. (previously presented) The process of claim 1 wherein the limb skeletal muscle cell consists of an arm skeletal muscle cell.
- 8-10. (canceled)
11. (previously presented) The process of claim 7 wherein the arm skeletal muscle cell is selected from the group consisting of palmaris longus muscle cell, pronator teres muscle cell, flexor carpi radialis muscle cell, flexor carpi ulnaris muscle cell, and flexor digitorum superficialis muscle cell.
12. (previously presented) The process of claim 7 wherein the arm skeletal muscle cell is selected from the group consisting of flexor digitorum profundus muscle cell, and pronator quadratus muscle cell.
- 13-15. (canceled)
16. (currently amended) The process of claim 7 wherein the arm skeletal muscle cell is selected from the group consisting of brachioradialis muscle cell, extensor carpi radialis longus muscle cell, extensor carpi ~~muscle cell~~, radialis brevis muscle cell, extensor

digitorum muscle cell, anconeus muscle cell, extensor carpi ulnaris muscle cell, and extensor pollicis longus muscle cell.

17. (previously presented) The process of claim 7 wherein the arm skeletal muscle cell is selected from the group consisting of supinator muscle cell, abductor pollicis longus muscle cell, extensor digiti secund et teriti muscle cell, and extensor digiti quart et minimi muscle cell.
18. (previously presented) The process of claim 7 wherein the arm skeletal muscle cell consists of a hand skeletal muscle cell.
19. (previously presented) The process of claim 18 wherein the hand skeletal muscle cell consists of a thumb muscle cell.
20. (previously presented) The process of claim 18 wherein the hand skeletal muscle cell consists of an interosseus muscle cell.
- 21-23. (canceled)
24. (previously presented) The process of claim 6 wherein the leg skeletal muscle cell is selected from the group consisting of gastrocnemius muscle cell and soleus muscle cell.
25. (previously presented) The process of claim 6 wherein the leg skeletal muscle cell is selected from the group consisting of popliteus muscle cell, flexor digitorum longus muscle cell, flexor hallucis longus muscle cell, and tibialis posterior muscle cell.
- 26-27. (canceled)
28. (previously presented) The process of claim 6 wherein the leg skeletal muscle cell consists of a foot skeletal muscle cell.
29. (previously presented) The process of claim 6 wherein the leg skeletal muscle cell is selected from the group consisting of tibialis anterior muscle cell, extensor hallucis longus muscle cell, extensor digitorum longus muscle cell, and abductor hallucis longus muscle cell.
30. (previously presented) The process of claim 6 wherein the leg skeletal muscle cell is selected from the group consisting of peroneus longus muscle cell and peroneus brevis muscle cell.
31. (previously presented) The process of claim 28 wherein the foot skeletal muscle cell is selected from the group consisting of extensor digitorum brevis muscle cell and extensor hallucis brevis muscle cell.
- 32-33. (canceled)

34. (currently amended) The process of claim 1 wherein applying non-invasive external pressure against the mammal's skin of the limb consists of applying a tourniquet around the limb.
35. (currently amended) The process of claim 1 wherein applying non-invasive external pressure against the mammal's skin of the limb consists of applying a cuff around the limb.
36. (previously presented) The process of claim 35 wherein the cuff consists of a sphygmomanometer.
37. (canceled)
38. (canceled)
39. (currently amended) An *in vivo* process for delivering [[a]] polynucleotides to [[a]] skeletal muscle cells in a limb of a mammal, comprising:
 - a) inserting the polynucleotides into a blood vessel in the limb of the mammal; and,
 - b) applying pressure to the limb wherein the pressure is applied non-invasively against the mammal's skin of the limb and impedes thereby impeding blood flow to into and out of the limb;

[[b)]] such that the delivering the polynucleotides are delivered to mammalian the skeletal muscle cells of the limb distal to the applied pressure ; and,

 - e) ~~expressing the polynucleotide~~ and expressed in the skeletal muscle cells to detectable levels; wherein inserting the polynucleotide, applying pressure, and expressing the polynucleotide does not diminish subsequent use of the limb by the mammal.
40. (currently amended) The process of claim 1 wherein administering immunosuppressive treatment drugs consists of repetitive administration of immunosuppressive treatment drugs.
41. (currently amended) The process of claim 1 wherein administering immunosuppressive treatment drugs consists of ~~a single treatment~~ administering immunosuppressive drugs within one day of injecting the polynucleotide.
42. (currently amended) The process of claim 1 wherein administering immunosuppressive treatment drugs is selected from the group consisting of administering immunosuppressive drugs orally treatment and administering immunosuppressive drugs treatment by subcutaneous injection.